REMARKS

Claims 1-11, 14-20, and 23-25 are pending in the application. Of these, claims 1, 6, and 14 are independent. Claims 23-25 are new.

Prior Art Rejections

The Examiner has rejected claims 1-11 and 14-18 under 35 U.S.C. 103(a) as being unpatentable over Nijhawan (US 6,374,341) in view of Vishin (US 5,860,146) and further in view of Applicant Admitted Prior Art (AAPA) described in page 1, lines 8-12 of the Applicant's specification. The Examiner has rejected claims 19-20 under 35 U.S.C. 103(a) as being unpatentable over Nijhawan and Vishin in view of Richter (US 2003/0097481).

Independent claims 1, 6, and 14

The Examiner acknowledges that "Nijhawan does not explicitly teach moving data from a network layer into a physical page, wherein the network layer receives and transmits the data as data packets that are odd sized, arrive asynchronously, and contain metadata embedded with real data." The Examiner, however, believes that Vishin's teachings of "send[ing] requests via a network 114 to pull in pages of data ... inherently include the step of moving data from a network layer into a physical memory space." The Examiner also cites Applicant Admitted Prior Art (AAPA) found on page 1, lines 8-12 of the Applicant's specification as teaching "in an Ethernet network, data packets that can be characterized as being odd-sized, arriving asynchronously or without warning, and having metadata ... embedded along with real data." The Examiner argues therefore that "it would have been obvious to one having ordinary skill in the art ... to combine the teachings of Nijhawan, Vishin, and AAPA to include moving data from a network layer into a physical memory page, wherein the network layer receives and transmits data packets that are odd-sized, arrive asynchronously, and contain metadata embedded with real data since such methods were conventionally employed in the art to extend the address space to memory outside the cluster by using [a] virtual memory management subsystem to manage

access to [a] remote physical address through the use of a (remote) page table and/or an auxiliary translation lookaside buffer." Applicants disagree.

The Applicant submits that the Examiner has not established a prima facie showing of obviousness under § 103. In this regard, the Applicant notes, regarding the Examiner's burden in making a rejection under § 103, that "[the Examiner] can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." In *re Fine*, 837 F.2d 1071, 1074 (Fed. Cir. 1988). The Applicant respectfully submits that the Examiner has not met that burden in making the above rejection, because the Examiner has not shown anything that would lead one of ordinary skill in the art to combine Nijhawan, Vishin, and AAPA. "The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Gordon*, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

The Applicant submits that neither Nijhawan, Vishin, nor AAPA provide any suggestion as to why one skilled in the art would be motivated to modify Nijhawan's method with the teaching of Vishin and AAPA in the manner suggested by the Examiner. Nijhawan's method, as described in col. 3, line 31 to col. 4, line 27, is directed towards moving data from a logical page within a processor to a physical memory page stored at a physical address in memory. Vishin's network 114, as described in FIG. 1 and accompanying text in col. 1, lines 12-24, is simply a connection of multiple processor clusters 102 that is neither disclosed nor suggested whatsoever to move "data *from a network layer* into a physical memory page."

A network layer, according to its ordinary English meaning, is a communications layer that routes packets of data from a source network address to a destination network address. Vishin's network is not understood to be a network layer or to have a network layer. A network layer is never mentioned in Vishin; and furthermore, Vishin's description of network 114 does not contain features that would suggest network 114 uses a network layer. Such features could include, for example, the routing of data packets, the use of a TCP/IP protocol, or an Ethernet implementation of network 114.

Even if Vishin's network 114 did include a network layer, the Applicant further submits that neither Nijhawan nor Vishin provide any suggestion as to why one skilled in the art would be motivated to modify the teaching of Nijhawan's with the teaching of Vishin in the manner suggested by the Examiner. Altering Nijhawan's method to move data from a network layer to a physical memory page is not a trivial task. Furthermore, there is nothing in the description of Nijhawan's paging system that suggests that it is equipped or could be modified to receive and transmit data as data packets over a network layer or that the paging system.

AAPA discloses an Ethernet network in which network data is transmitted and received as data packets that are odd-sized, arrive asynchronously, and contain metadata embedded with real data. Nijhawan lacks disclosure of a network altogether and Vishin neither discloses nor suggests that the network 114 is capable of transmitting and receiving data as data packets. There is nothing in Vishin that suggests that network 114 is anything more than a simple connection between processor clusters, which could, for example, be implemented by a serial connection that sends data one bit at time. Thus neither Nijhawan nor Vishin provide any suggestion as to why one skilled in the art would be motivated to modify their systems with AAPA to transmit and receive data packets that are odd-sized, arrive asynchronously, and contain metadata embedded with real data.

Moreover, Applicants respectfully submit that combining the teachings of Nijhawan, Vishin, and AAPA does not yield the present invention as recited in claims 1, 14, and 16, particularly with respect to moving data from a network layer into a physical memory page.

Dependent claims 19-20

On page 6 of the office action , the Examiner acknowledges that "Nijhawan-Vishin-AAPA ... does not teach the network layer uses a transport control protocol / internet protocol (TCP/IP) to transmit and receive the data as data packets over a computer network such as an Ethernet. However, the Examiner relies on Richter (US 2003/0097481 A1) to teach this lacking feature. Futhermore, the Examiner asserts on page 7 of the office action that "it would have been obvious ... to combine the teaching of Nijhawan-Vishin-AAPA and Richter to use TCP/IP to

transmit and receive the data as data packets over the Ethernet network since such methods were conventionally employed in the art ..."

Richter is directed to a checksum method for detecting errors and verifying data in the form of data packets (Abstract and paragraph [0003]). There is nothing in Richter that describes or suggests the use of a translation lookaside buffer such as that disclosed in Nijhawan or Vishin. As discussed above, neither Nijhawan nor Vishin disclose or suggest that the data is transmitted over a network as data packets. Therefore, the Applicant submits that neither Nijhawan, Vishin, AAPA, nor Richter provide any suggestion that one of ordinary skill in the art would be motivated to combine the teachings of these references in the manner suggested by the Examiner. Thus the combination is improper as a matter of law.

Dependent claims 23-25

Claims 23-25 recite that "the data packets arrive in a sequence that is different from an original sequence in which they were transmitted." The Applicant submits Nijhawan, Vishin, AAPA, and Richter, whether taken separately or in combination, fail to disclose or suggest the features of claims 23-25.

For the foregoing reasons, independent claims 1, 6, and 14, along with their dependent claims, are patentable.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

While no fees are believed to be due at this time, please apply any charge deficiencies or credits to deposit account 06-1050, referencing Attorney Docket No. 07072-137001.

Respectfully submitted,

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